

2014 Mathematics Primary Adoption



Reviewer Training
Day 2
June 19, 2013

Prepared by the Curriculum Frameworks and Instructional Resources Division California Department of Education

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WORK PLAN FOR INSTRUCTIONAL MATERIALS REVIEWERS/CONTENT REVIEW EXPERTS 2014 MATHEMATICS ADOPTION

June 18-21, 2013	July 5, 2013	July 5-September 9, 2013	July 5-September 9, 2013	September 10-14, 2013
CTED 4	STEP 2 Program Materials Arrive	INDEPENDENT REVIEW		STEP 4
STEP 1 Training		STEP 3A Education Content Review	STEP 3B Social Content Review	Deliberations Report of Findings
Provide reviewers with the information needed to thoroughly and effectively evaluate the programs submitted by the publishers.	Program Materials assigned to each panel are delivered and inventoried by reviewers.	Each reviewer will conduct an independent review of the program materials using the State Board- approved Evaluation Criteria and the Standards and Criteria Maps provided by publishers.	Concurrent with education content review, reviewers conduct a review for social content, evaluating materials for compliance with the Standards for Evaluating Instructional Materials for Social Content.	Panels reconvene to discuss and come to consensus on whether each program shoul or should not be recommended for adoption. This recommendation is reflected in the panel's <i>Repor</i> of <i>Findings</i> .
Step 1: Training Agenda • Day 1 Day 1 Step 2_Program Materials Arrive Step 3A_ Education Content Review. Overview of Criteria Step 4_Deliberations - Overview Day 2 Step 3A_Education Content Review - Categories 1, 2, 3, 5, 6 Step 4_Deliberations - Categories 1, 2, 5, 6 Day 3 Step 3A_Education Content Review - Categories 1, 2, 5, 6 Step 4_Deliberations - Categories 1, 2, 5, 6 Step 4_Deliberation - Category 3 Step 3A_Education Content Review - Category 4 Step 3B_ Social Content Review Day 4 Publisher Presentations	Steps: Unpack and inventory contents using enclosed submission list. Call CDE within 10 days if any items on submission list are missing. Contact publisher Technology Support Contact if you have problems accessing technology-based components.	Steps: Step step step step step step step step s	Steps: Review program for compliance with the Standards for Evaluating Instructional Materials for Social Content. If not in compliance, fill out a Social Content Citation Form for each citation.	Steps: Set daily schedule (start, break, end times) Initial tally of panel for each program Develop publisher questions In-depth discussion of program(s) Publisher response to questions Take public comment twice a day Come to consensus Witte Report of Findings (include citations and edits and corrections)
Tools: • Evaluation Criteria • Practice Pieces • Standards and Criteria Maps • Sample Report Template • Training Binder	Tools: • Submission list of program components	Tools:	Tools: Standards for Evaluating Instructional Materials for Social Content Social Content Citation Forms Public Comment Forms	Tools: • Evaluation Criteria • Standards and Criteria Maps, Reviewer Notes • Report of Findings Template • Program Sign-Off Sheet



Overview of Training Day 2

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Morning Session

- Evaluation Criteria Overview of Category 1
- Practice Deliberations Category 1 (using Practice Lesson and Sample Standards and Criteria Maps).
- Evaluation Criteria Overview of Criteria Categories 2, 5, and 6

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Overview of Training Day 2

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Afternoon Session

- Practice Deliberations Categories 2, 5, and 6
- Evaluation Criteria Overview of Category 3



Criteria - Category 1

Mathematics Content / Alignment with the Standards

- Mathematics materials should support teaching to the Common Core State Standards for Mathematics with California Additions.
- One hundred percent of the standards for a given grade level/course must be met for a program to be eligible for adoption.

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Criterion 1.1

Mathematics Content / Alignment with the Standards

- The mathematics content is correct, factually accurate, and written with precision.
- Mathematical terms are defined and used appropriately.
- Where the standards provide a definition, materials use that as their primary definition to develop student understanding.



Criterion 1.2

Mathematics Content / Alignment with the Standards

The materials in basic instructional programs support comprehensive teaching of the *California Common Core State*Standards: Mathematics and include the standards for mathematical practice at each grade level or course.

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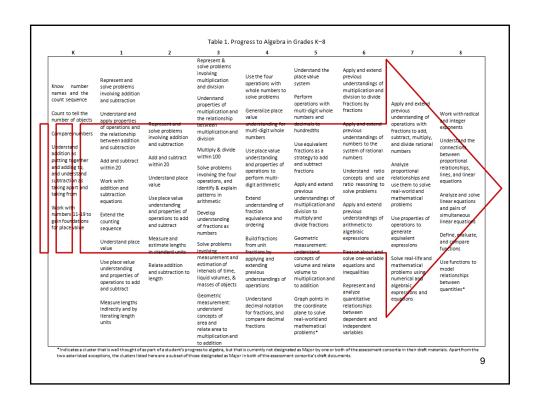


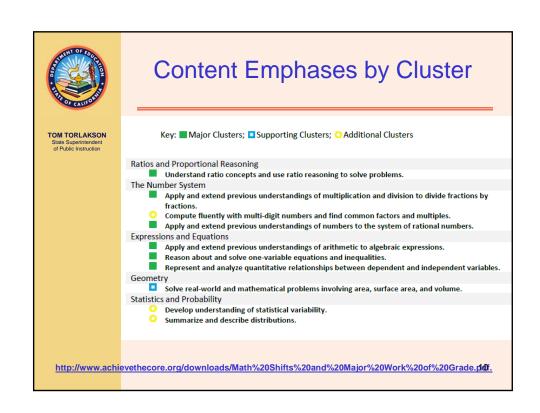
Criterion 1.3

Mathematics Content / Alignment with the Standards

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> In any single grade in the kindergarten through grade eight sequence, students and teachers using the materials as designed spend the large majority of their time on the major work of each grade.







Criterion 1.4

Mathematics Content / Alignment with the Standards

Focus:

- In aligned materials there are no chapter tests, unit tests, or other assessment components that make students or teachers responsible for any topics before the grade in which they are introduced in the Standards.
- If the materials address topics outside of the California Common Core State Standards: Mathematics, the publisher will provide a mathematical and pedagogical justification.

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Criterion 1.5

Mathematics Content / Alignment with the Standards

Focus and Coherence through Supporting Work: Supporting clusters do not detract from focus, but rather enhance focus and coherence simultaneously by engaging students in the major clusters of the grade.



Criterion 1.6

Mathematics Content / Alignment with the Standards

Rigor and Balance: Materials and tools reflect the balances in the Standards and help students meet the Standards' rigorous expectations, by all of the following 3 criteria...

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Criterion 1.6.a

Mathematics Content / Alignment with the Standards

Developing students' conceptual understanding of key mathematical concepts, where called for in specific content standards or cluster headings, including connecting conceptual understanding to procedural skills.

Example: Grade One, Operations and Algebraic Thinking

- Cluster: Understand and apply properties of operations and the relationship between addition and subtraction.
- **Standard 4:** Understand subtraction as an unknown-addend problem. For example, subtract 10 8 by finding the number that makes 10 when added to 8.



Criterion 1.6.b Mathematics Content / Alignment with the Standards

Giving attention throughout the year to individual standards that set an expectation of fluency.

- Students should be able to perform computations accurately and reasonably quickly.
- Students demonstrate fluency with written/mental methods, not just using manipulatives or other concrete representations.

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Required Fluencies in K-6

Grade	Standard	Required Fluency
K	K.OA.5	Add/subtract within 5
1	1.OA.6	Add/subtract within 10
2	2.OA.2 2.NBT.5	Add/subtract within 20 Add/subtract within 100
3	3.OA.7 3.NBT.2	Multiply/divide within 100 Add/subtract within 1000
4	4.NBT.4	Add/subtract within 1,000,000
5	5.NBT.5	Multi-digit multiplication
6	6.NS.2,3	Multi-digit division Multi-digit decimal operations



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Criterion 1.6.c

Mathematics Content / Alignment with the Standards

Allowing teachers and students using the materials as designed to spend sufficient time working with engaging applications, without losing focus on the major work of each grade.

- Various types of problems
- Modeling throughout the K-8 curriculum
- Identify explicit requirements in standards

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Criterion 1.7

Mathematics Content / Alignment with the Standards

Materials are consistent with the progressions in the Standards, by:

- a. Basing content progressions on the grade-bygrade progressions in the Standards.
- b. Giving all students extensive work with gradelevel problems.
- c. Relating grade level concepts explicitly to prior knowledge from earlier grades.



Criterion 1.8

Mathematics Content / Alignment with the **Standards**

Materials foster coherence through connections at a single grade, where appropriate and where required by the Standards, by:

- a. Including learning objectives that are visibly shaped by CCSSM cluster headings, with meaningful consequences for the associated problems and activities.
- b. Including problems and activities that serve to connect two or more clusters in a domain, or two or more domains in a grade, in cases where these connections are natural and important.



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Criteria 1.9, 1.10, 1.11

Mathematics Content / Alignment with the Standards

- 1.9. Practice-Content Connections: Materials meaningfully connect content standards and practice standards.
- 1.10. Focus and Coherence via Practice Standards: Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards.
- 1.11. Careful Attention to Each Practice Standard: Materials attend to the full meaning of each practice standard.



Criterion 1.12 Mathematics Content / Alignment with the Standards

Emphasis on Mathematical Reasoning: Materials support the Standards' emphasis on mathematical reasoning, by:

- a. Prompting students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards.
- b. Engaging students in problem solving as a form of argument.

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Criterion 1.12 English Learner Requirements

Emphasis on Mathematical Reasoning: Materials support the Standards' emphasis on mathematical reasoning, by:

- c. Explicitly attending to the specialized language of mathematics.
- d. Materials help English learners access challenging mathematics, learn content, and develop grade-level language.



Step 3A: Education Content Review Category 1: Content/Alignment with Standards

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Category 1 Activity Completing a Standards Map, Part 2

- 1. CDE staff will distribute a completed map for the entire practice piece.
- 2. Panels identity and discuss differences between their citations and the CDE version.
- 3. Panels will report out again at the end of the activity.

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Step 4: Deliberations

TOM TORLAKSON State Superintendent of Public Instruction **Purpose:** Discuss and come to consensus on whether each program should or should not be recommended for adoption to the Instructional Quality Commission and the State Board of Education.

Tools: Standards Maps, Evaluation Criteria Maps, Reviewer Notes, Report Template

Outcome: Report of Findings



Step 4: Deliberations Category 1 – Content/Alignment with Standards

Category 1 Discussion

- Panel discussion of each criteria
- Come to consensus
 - Criteria "met" or "not met"
- Identify supporting citations

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Step 4: Deliberations

Category 1 – Content/Alignment with Standards

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Category 1 Activity

- Apply to Practice Lesson
 - Panel discussion of the practice lesson based on Criteria Category 1
 - Use Standards Map, Evaluation Criteria Map
 - Note on poster chart
 - · whether the criteria was met or not met
 - supporting citations and publisher questions
- Panels report out



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Step 4: Deliberations

Category 1 – Content/Alignment with Standards

Develop Publisher Questions

- Each panel will develop publisher questions the first day of deliberations
- Questions are tied to the Evaluation Criteria or the Standards Maps
- Questions help you understand the program, how it operates, or how it meets the criteria

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Step 4: Deliberations

Category 1 - Content/Alignment with Standards

Examples:

- Instead of:
 - Why didn't you include a list of the Common Core mathematics standards in the teacher's guide as required in the criteria?
- You could ask:
 - Where in the teacher's guide does your program provide a checklist of Common Core mathematics standards with page number references as required in Category 2 Criterion 1?



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Step 4: Deliberations

Category 1 – Content/Alignment with Standards

Category 1: Activity Develop Publisher Questions

- Apply to Practice Lesson
 - Panel develops a question based on the content criteria category 1 and the practice piece
 - Write out question on chart paper
- Report out questions

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Step 4: Deliberations

Category 1 – Content/Alignment with Standards

Category 1: Discussion Report of Findings

- One report for each program
- Includes citations that support the recommendation (meets or does not meet criteria)

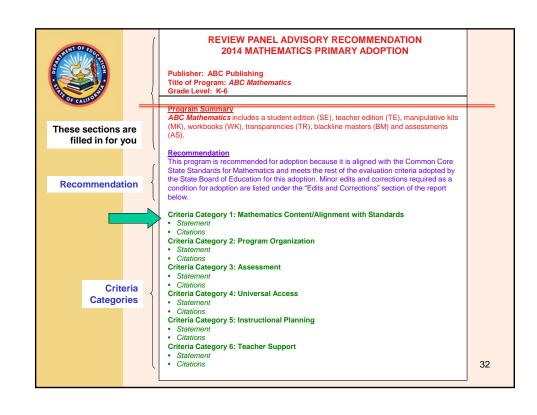


Step 4: Deliberations

Category 1 - Content/Alignment with Standards

Category 1: Discussion Report of Findings

- Program is recommended or is NOT recommended for adoption:
 - Report must include evaluation-criteriabased reasons justifying the recommendation
 - Provide supporting citations





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Step 4: Deliberations

Category 1 – Content/Alignment with Standards

Apply to Practice Piece

- Each panel will write report statements and citations for the section: Criteria Category 1: Mathematics Content/Alignment with Standards, based on your practice lesson and discussions this morning.
- Citation example:

Citations: Criterion #1: SE/TE pp. 266-267; Criterion #4: Grade 5, SE/TE pp. 464-465.

- Use the chart paper to record your report statements
- Report out

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Step 3A: Education Content Review Criteria Categories 2, 5, and 6

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Activity

- 1. Silently read criteria under Categories 2, 5, and 6.
- 2. Highlight some important features of each criteria.
- 3. As a panel, come to consensus on these important features.
- 4. Appoint a spokesperson to report out.



Criteria Category 2 Program Organization

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The organization and features of the instructional materials support instruction and learning of the standards. Teacher and student materials include such features as lists of the standards, chapter overviews, and glossaries. Instructional materials must have strengths in these areas to be considered suitable for adoption.

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Criterion 2.1Program Organization

A list of Common Core State Standards for Mathematics with California Additions is included in the teacher's guide together with page number citations or other references that demonstrate alignment with the content standards and standards for mathematical practice. All standards must be listed in their entirety with their cluster heading included.



Criterion 2.2Program Organization

Materials drawn from other subject-matter areas are consistent with the currently adopted California standards at the appropriate grade level, including the California Career Technical Education Model Curriculum Standards where applicable.

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Criterion 2.3 Program Organization

Intervention components, if included, are designed to support students' progress in mathematics and develop fluency. Intervention materials should provide targeted instruction on standards from previous grade levels and develop student learning of the standards for mathematical practice.



Criterion 2.4 Program Organization

Acceleration components, if included, are designed to support students' progress beyond grade-level standards in mathematics. Acceleration materials should provide instruction targeted toward readiness for higher mathematics at the middle school level.

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Criterion 2.5Program Organization

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Teacher and student materials contain an overview of the chapters, clearly identify the mathematical concepts, and include tables of contents, indexes, and glossaries that contain important mathematical terms.



Criterion 2.6Program Organization

Support materials are an integral part of the instructional program and are clearly aligned with the Common Core State Standards for Mathematics with California Additions.

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Criterion 2.7Program Organization

The grade-level content standards and the standards for mathematical practice demonstrating alignment to student lessons shall be explicitly stated in the student editions.



Criteria Category 5 *Instructional Planning*

Instructional materials must contain a clear road map for teachers to follow when planning instruction.

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Criteria Category 5 Instructional Planning

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 A teacher's edition with ample and useful annotations and suggestions on how to present the content in the student edition and in the ancillary materials, including modifications for English learners, advanced learners, students below grade level in mathematical skills, and students with disabilities.



Criteria Category 5 Instructional Planning

- 2. A list of program lessons in the teacher's edition, cross-referencing the standards covered and providing an estimated instructional time for each lesson, chapter, and unit.
- 3. Unit and lesson plans, including suggestions for organizing resources in the classroom and ideas for pacing lessons.
- 4. A curriculum guide for the academic instructional year.



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Criteria Category 5 Instructional Planning

- 5. All components of the program are user friendly and, in the case of electronic materials, platform neutral.
- 6. Answer keys for all workbooks and other related student activities.
- 7. Concrete models, including manipulatives, support instruction of the *Common Core State Standards for Mathematics with California Additions* and include clear instructions for teachers and students.
- 8. A teacher's edition that explains the role of the specific grade-level mathematics in the context of the overall mathematics curriculum for kindergarten through grade twelve.
- Technical support and suggestions for appropriate use of audiovisual, multimedia, and information technology resources.



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Criteria Category 5 Instructional Planning

- 10. Homework activities, if included, that extend and reinforce classroom instruction and provide additional practice of mathematical content, practices, and applications that have been taught.
- 11. Strategies for informing parents or guardians about the mathematics program and suggestions for how they can help support student progress and achievement.

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Criteria Category 6 Teacher Support

Instructional materials should be designed to help teachers provide mathematics instruction that ensures opportunities for all students to learn the essential skills and knowledge specified for in the Common Core State Standards for Mathematics with California Additions.



Criteria Category 6

Teacher Support

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 Clear, grade-appropriate explanations of mathematics concepts that teachers can easily adapt for instruction of all students, including English learners, advanced learners, students below grade level in mathematical skills, and students with disabilities.

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Criteria Category 6 Teacher Support

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- 2. Strategies to identify, address, and correct common student errors and misconceptions.
- Materials designed to help teachers identify the reason(s) that students may find a particular type of problem(s) more challenging than another (e.g., identify skills not mastered) and point to specific remedies.



Criteria Category 6

Teacher Support

- 3. Suggestions for accelerating or decelerating the rate at which new material is introduced to students.
- 4. Different kinds of lessons and multiple ways in which to explain concepts, offering teachers choice and flexibility.

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Criteria Category 6 Teacher Support

6. Learning objectives that are explicitly and clearly associated with instruction and assessment.



Criteria Category 6 Teacher Support

- 7. A teacher's edition that contains full, adultlevel explanations and examples of the more advanced mathematics concepts in the lessons so that teachers can improve their own knowledge of the subject, as necessary.
- 8. Explanations of the instructional approaches of the programs and identification of the research-based strategies.
- 9. Explanations of the mathematically appropriate use of manipulatives or other visual and concrete representations.

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Step 3A: Education Content Review Criteria Categories 2, 5, and 6

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Activity

- 1. Panel discussion of criteria in Categories 2, 5, and 6.
- 2. Any questions about the criteria?
- 3. Report out by panel.



Step 3A: Education Content Review Criteria Categories 2, 5, and 6

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Practice Independent Review

- Using the Evaluation Criteria Map, does the practice piece meet the criteria in Categories 2, 5, and 6?
- Take notes to justify your answer, citing exemplary citations for criteria items that are not covered, and clarifying questions for the publishers.

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Lunch

There are three kinds of mathematicians: those who can count and those who cannot.



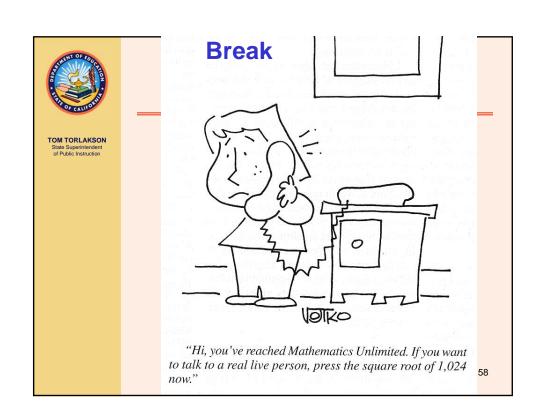


Step 4: Deliberations Criteria Categories 2, 5, and 6

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Practice Steps of Deliberations

- Panel Discussion (Practice Piece, Criteria Map)
- Develop Publisher Questions
- Reach Consensus
- Write-up the "Statement" for Categories 2, 5, and 6 with Citations (Report of Findings)
- Panels Report Out





Criteria Category 3 Assessment

Instructional materials should contain strategies and tools for continually measuring student achievement.

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Step 3A: Education Content Review Category 3: Assessment

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Activity

- Silently read criteria under Category 3: Assessment.
- 2. Highlight some important features of each criteria.
- 3. As a panel, come to consensus on these important features.
- 4. Appoint a spokesperson to report out.



Criterion 3.1Assessment

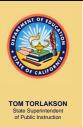
Not every form of assessment is appropriate for every student or every topic area, so a variety of assessment types need to be provided for formative assessment.

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Criterion 3.2 *Assessment*

Summative assessment is the assessment of learning at a particular time point and is meant to summarize a learner's skills and knowledge at a given point of time.



Criterion 3.3 *Assessment*

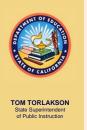
All assessments should have content validity and measure individual student progress both at regular intervals and at strategic points of instruction.

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Criterion 3.4 Assessment

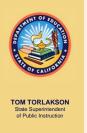
Intervention aspects of mathematics programs should include initial, formative, and summative assessments.



Criterion 3.5 *Assessment*

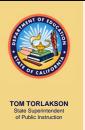
Suggestions on how to use assessment data should be included.

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Criterion 3.6 *Assessment*

Assessments that ask for variety in what students produce should be included.



Criterion 3.7 Assessment

Assessment tools for grades six through eight help to determine student readiness for Algebra 1 and Mathematics 1.

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Criterion 3.8Assessment

Acceleration aspects of mathematics programs include initial, formative, and summative assessments.



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Step 3A: Education Content Review Category 3: Assessment

Activity

- 1. Panel discussion of criteria in Category 3.
- 2. Any questions about the criteria?
- 3. Report out by panel.

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Step 3A: Independent Review Category 3: Assessment

Practice Independent Review

- Using the Criteria Map, does the practice lesson meet the criteria in Category 3?
- Take notes to justify your answer, citing exemplary citations, criteria that are not covered, and clarifying questions for the publishers.
- Complete this activity as homework if you need more time.



Homework – Day 2

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- Complete your Independent Review of Category 3 from this morning, using the Practice Piece
- Does the practice piece meet the criteria in Category 3?
- Review the criteria statements in Category 4: Universal Access

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Review Agenda for Day Three – Thursday, June 20

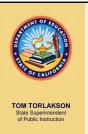
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Morning Session

- Deliberations Criteria Category 3
- Education Content Review Criteria Category 4

Afternoon Session

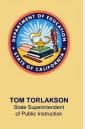
- Social Content Review
- Review of Process
- Publisher Presentations Instructions



Questions & Answers

Commissioners and CFIR Staff respond to your questions

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Public Comment

Would any members of the public like to speak?

